

ABSTRACT

~~Disclosed is a method~~ A for embedding a digital watermark on a wavelet lowest subband. ~~The method including~~ includes: setting a DC component region of a multi-stage wavelet-transformed original copy image to a watermark embedment region, and high-frequency filtering an original picture LL_n of the embedment region; generating index information for designating a pixel position, and a watermark sequence to be embedded; calculating an embedment strength λ for each position of the watermark embedment region; in case the watermark sequence is sequentially embedded on an embedded position designated by the index information, mutually comparing the original picture LL_n coefficient value for each embedded position with a mirror picture LL_n' coefficient value, and then altering the original picture LL_n coefficient value; and in case the original picture LL_n coefficient value is differentiated above a predetermined value with reference to the corresponding embedment strength λ , skipping the watermark embedment for the position.